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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

QIN, JIANCHUN

ART UNIT

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2832

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,686	Applicant(s) YOSHISUE ET AL.	
	Examiner JIANCHUN QIN	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshisue et al. (JP 2004226949, English translation) in view of kido et al. (U.S. Pat. No. 6051307) and Jones et al. (U.S. Pat. No. 5911167).

Regarding claim 7, Yoshisue teaches a repetition lever for a grand piano (Abstract and Drawings 1 and 4), which performs the operation of pushing up a hammer after the hammer has struck a string, wherein the repetition lever (5) is formed by carbon fiber (Abstract; sections 0011, 0014); wherein the repetition lever has a shank roller-pushing part (Drawings 1 and 4) having left and right wall parts (5d) which define a jack guide hole (Drawing 4) for guiding a jack (6a) and on which a shank roller (8) of the hammer rides (Drawing 1).

Yoshisue does not mention expressly: wherein the repetition lever is formed by a molded article of a thermoplastic resin containing long fibers for reinforcement, the molded article being molded by a long fiber process; and wherein the shank roller-pushing part has at an outer side surface thereof a marking line as a reference in adjusting an angular position of the jack.

kido et al. teach a technique for forming a molded article of a thermoplastic resin containing long fibers for reinforcement, the molded article being molded by a long fiber process (Abstract; col. 2, lines 40-57).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Yoshisue as taught by kido et al. to form the repetition lever by a molded article of a thermoplastic resin containing long fibers for reinforcement in order to provide a repetition lever excellent in appearance and mechanical strength (kido et al., col. 2, lines 55-57). The mere application of a known technique to a specific instance by those skilled in the art would have been obvious.

Jones et al. disclose a piano action assembly (Figs. 4A and 19), comprising a repetition lever having a shank roller-pushing part (Figs. 20 and 20A, the enlarged portion at the right side of 310 which contains the slot having a dimension 312), wherein the shank roller-pushing part has at an outer side surface (Fig. 20A, the surface facing toward the viewer or the surface at opposite side) thereof a marking line (Fig. 20A, the upper or lower edge of the curved end of the slot which intersects with the corresponding "outer side surface") as a reference in adjusting an angular position of the jack (inherent function to the curved end of the slot).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Yoshisue with forming the repetition lever as taught by Jones et al. in order to provide an improved repetition lever that would improve the coupling between the jack and other parts of the action assembly and in turn the operational performance of the assembly (Jones et al., col. 2, lines 52-64).

Art Unit: 2832

Regarding claim 8, Yoshisue does not mention: wherein the long fibers have a length not shorter than 0.5 mm.

The teaching of kido et al. includes: wherein the long fibers have a length not shorter than 0.5 mm (Abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Yoshisue as taught by kido et al. to form the repetition lever by a molded article of a thermoplastic resin containing long fibers for reinforcement in order to provide a repetition lever excellent in appearance and mechanical strength (kido et al., col. 2, lines 55-57).

Regarding claims 9-11, Yoshisue teaches: wherein the long fibers are carbon fibers (Abstract); wherein the thermoplastic resin is an ABS resin (sections 0031 and 0037); and wherein the repetition lever (5) has a reduced cross-sectional area portion for reducing weight thereof (Drawing 4; section 0025).

Allowable Subject Matter

3. Claims 1-6 are allowed.

Reasons for Allowance

4. The following is a statement of reasons for the indication of allowable subject matter:

Please see Office action mailed 01/22/09 for reasons for allowance of claims 1-6.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Response to Arguments

6. Applicant's arguments received 04/22/09 with respect to claims 7-11 have been considered but they are not persuasive.

Applicants argue that the Jones patent does not disclose the feature of Applicants' invention where "the shank roller-pushing part has at an outer side surface thereof a marking line as a reference in adjusting an angular position of the jack" because the marking line taught by Jones (i.e., the upper or lower edge of the curved end of the slot shown in Jones' FIG 20 and FIG. 20A) is not at "an outer side surface of the shank roller-pushing part. Rather, the edges of the curved end of the slot are located inside of the repetition lever." The argument is not persuasive. The examiner's

Art Unit: 2832

position is that, giving the claim the broadest reasonable interpretation, the Jones patent does disclose or teach or suggest the feature in question. Specifically, as discussed in detail in section 2 set forth above in this Office action, Jones et al. disclose a repetition lever (Figs. 20 and 20A) having a shank roller-pushing part (the enlarged portion at the right side of 310 which contains the slot with a dimension 312), wherein the shank roller-pushing part has at an outer side surface (Fig. 20A, the surface facing toward the viewer or the surface at opposite side) thereof a marking line (Fig. 20A, the upper or lower edge of the curved end of the slot which intersects with the corresponding "outer side surface") as a reference in adjusting an angular position of the jack (inherent function to the curved end of the slot). Since both Yoshisue and Jones patents pertain to a repetition lever for a grand piano piano action, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Yoshisue with forming the repetition lever as taught by Jones et al. in order to provide an improved repetition lever that would improve the coupling between the jack and other parts of the action assembly and in turn the operational performance of the assembly (Jones et al., col. 2, lines 52-64). The combination is proper and obvious. The rejection is therefore maintained.

In response to Applicants' argument that "since the shank roller-pushing part of the repetition lever has at an outer side surface thereof a marking line as a reference in adjusting an angular position of the jack, no friction occurs between the shank roller-pushing part and the shank roller of the hammer riding thereon", Applicants' reliance upon the specification in this regard is noted. However, the feature in the specification to

Art Unit: 2832

which Applicant refers is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The rest of the Applicants' arguments regarding the "marking line" are reliant upon the issue discussed above, and are deemed to be non-persuasive as well for the reasons provided above.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianchun Qin whose telephone number is (571) 272-5981. The examiner can normally be reached on 8am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/575,686
Art Unit: 2832

Page 8

/JIANCHUN QIN/

Examiner, Art Unit 2832